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M. M.
5/13/03

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	:	Adnan M.M. Mjalli et. al.
Ser. No.	:	10/091,759
Filing Date	:	March 5, 2002
For	:	CARBOXAMIDE DERIVATIVES AS THERAPEUTIC AGENTS
Examiner	:	Zina Northington-Davis
Art Unit	:	1625

COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, VA 22313-1450

Preliminary Amendment, Election and Response

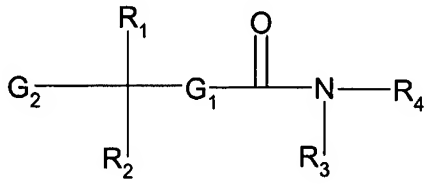
Sir:

This Response is being submitted in response to the Office Action mailed April 10, 2003. Applicants are required to elect a single disclosed species for examination and to list claims readable thereon.

Applicants respectfully request entry of the following amendments to claims 12, 13, 18, 19, 20, 21 and 22.

Applicants respectfully request cancellation of claims 8, 9 and 10 without prejudice to or disclaimer of the subject matter contained therein.

1. (Original) A compound of Formula (I):



(I)

wherein

G_1 comprises C_1-C_6 alkylene or $(CH_2)_k$, where k is 0 to 3;

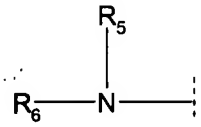
G_2 comprises a) hydrogen

b) - C_{1-6} alkyl;

c) –aryl;

d) –C_{1-6} alkylaryl ;

e)



where R_5 and R_6 independently comprise

i) –H;
ii) -C_{1-6} alkyl;
iii) –aryl;
iv) -C_{1-6} alkylaryl;
v) -C(O)-O-C_{1-6} alkyl;
vi) -C(O)-O-C_{1-6} alkylaryl;
vii) -C(O)-O-C_{1-6} alkylcycloalkylaryl;

viii) -C(O)-NH-C_{1-6} alkyl;

ix) -C(O)-NH-C_{1-6} alkylaryl;

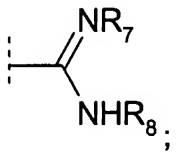
x) -SO_2-C_{1-6} alkyl;

xi) -SO_2-C_{1-6} alkylaryl;

xii) -SO_2-aryl;

xiii) -SO_2-NH-C_{1-6} alkyl;

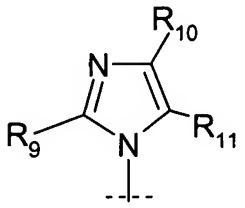
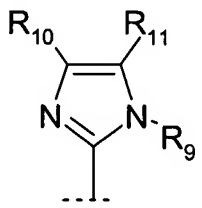
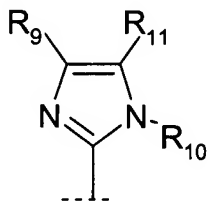
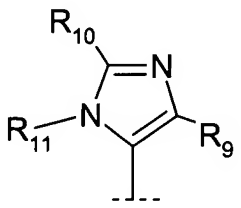
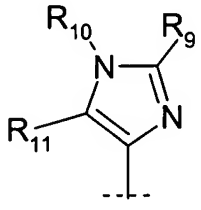
xiv) -SO_2-NH-C_{1-6} alkylaryl;

xv)  ;

xvi) -C(O)-C_{1-6} alkyl; or

xvii) -C(O)-C_{1-6} alkylaryl; or

f) a group of the formula

 ,  ,  ,  , or  ;

wherein

R_9, R_{10}, and R_{11} may comprise hydrogen; or

R_9, R_{10}, and R_{11} independently comprise

i) $-C_{1-6}$ alkyl;

ii) –aryl;

iii) $-C_{1-6}$ alkylaryl;

iv) $-C(O)-O-C_{1-6}$ alkyl;

v) $-C(O)-O-C_{1-6}$ alkylaryl;

vi) $-C(O)-NH-C_{1-6}$ alkyl;

vii) $-C(O)-NH-C_{1-6}$ alkylaryl;

viii) $-SO_2-C_{1-6}$ alkyl;

ix) $-SO_2-C_{1-6}$ alkylaryl;

x) $-SO_2$-aryl;

xi) $-SO_2-NH-C_{1-6}$ alkyl;

xii) $-SO_2-NH-C_{1-6}$ alkylaryl;

xiii) $-C(O)-C_{1-6}$ alkyl; or

xiv) $-C(O)-C_{1-6}$ alkylaryl;

R_{10} and R_{11} may be taken together to constitute a fused cycloalkyl, fused heterocyclyl, or fused aryl ring containing the atoms to which R_{10} and R_{11} are bonded;

R_1 comprises

a) hydrogen;

b) $-C_{1-6}$ alkyl;

c) –aryl; or

d) $-C_{1-6}$ alkylaryl;

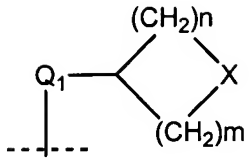
R_2 comprises

a) $-C_{1-6}$ alkyl;

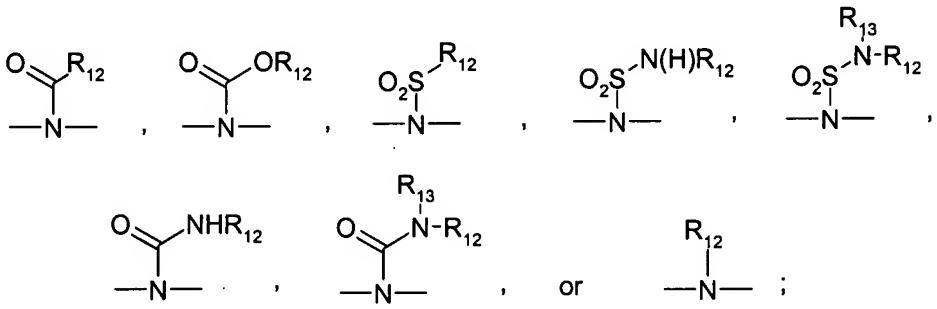
b) –aryl;

c) $-C_{1-6}$ alkylaryl; or

d) a group of the formula



wherein m and n are independently selected from 1, 2, 3, or 4; X comprises a direct bond, CH_2-, -O-, -S-, -S(O_2)-, -C(O)-, -CON(H)-, -NHC(O)-, -NHCON(H)-, -NHSO_2-, -SO_2N(H)-, -C(O)-O-, -O-C(O)-, -NHSO_2NH-,



-Q_1- comprises C_{1-6} alkylene, C_{2-6} alkenylene, or C_{2-6} alkynylene;

R_3 comprises

a) hydrogen;
b) -C_{1-6} alkyl;
c) -C_{1-6} alkylaryl; or
d) -C_{1-6} alkoxyaryl;

R_4 comprises

a) -C_{1-6} alkylaryl;
b) -C_{1-6} alkoxyaryl; or
c) –aryl;

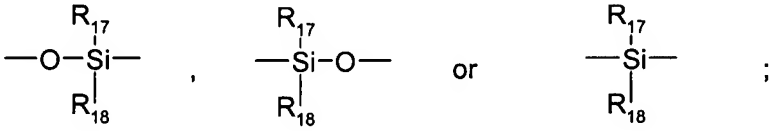
R_7, R_8, R_{12} and R_{13} independently comprise hydrogen, C_1-C_6 alkyl, C_1-C_6 alkylaryl, or aryl; and wherein

the aryl and/or alkyl group(s) in R_1, R_2, R_3, R_4, R_5, R_6, R_7, R_8, R_9, R_{10}, R_{11}, R_{12}, and R_{13} may be optionally substituted 1-4 times with a substituent group, wherein said substituent group(s) or the term substituted refers to groups comprising:

a) -H;

b) -Y-C_{1-6} alkyl;
-Y-aryl;
-Y-C_{-1-6} alkylaryl;
-Y-C_{1-6}-alkyl-$NR_{14}R_{15}$;
-Y-C_{1-6}-alkyl-W-R_{16};

wherein Y and W independently comprise -CH_2-, -O-, -N(H), -S-, SO_2-, -CON(H)-, -NHC(O)-, -NHCON(H)-, -$NHSO_2$-, -$SO_2N(H)$-, -C(O)-O-, -$NHSO_2NH$-, -O-CO-,

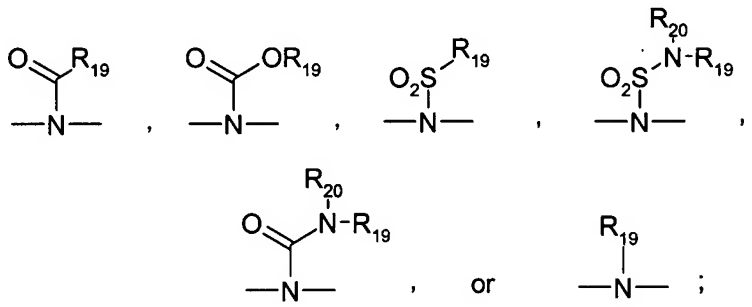


R_{16}, R_{17}, and R_{18} comprise hydrogen, aryl, C_1-C_6 alkyl, C_1-C_6 alkylaryl, C_1-C_6 alkoxy, or C_1-C_6 alkoxyaryl; or

c) halogen, hydroxyl, cyano, carbamoyl, or carboxyl; and

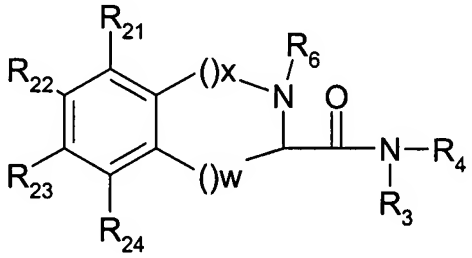
R_{14} and R_{15} independently comprise hydrogen, aryl, C_1-C_6 alkyl, or C_1-C_6 alkylaryl; and wherein

R_{14} and R_{15} may be taken together to form a ring having the formula -$(CH_2)_o$-Z-$(CH_2)_p$- bonded to the nitrogen atom to which R_{14} and R_{15} are attached, and/or R_7 and R_8 may, independently, be taken together to form a ring having the formula -$(CH_2)_o$-Z-$(CH_2)_p$- bonded to the atoms to which R_7 and R_8 are attached, wherein o and p are, independently, 1, 2, 3, or 4; Z comprises a direct bond, -CH_2-, -O-, -S-, -$S(O_2)$-, -C(O)-, -CON(H)-, -NHC(O)-, -NHCON(H)-, -$NHSO_2$-, -$SO_2N(H)$-, -C(O)-O-, -O-C(O)-, -$NHSO_2NH$-,



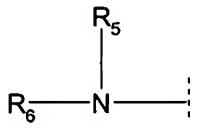
R_{19} and R_{20} independently comprise hydrogen, aryl, C_1-C_6 alkyl, or C_1-C_6 alkylaryl.

2. (Original) The compound of claim 1, represented by Formula (Ia)



(Ia)

wherein G_1 comprises a direct bond;

G_2 comprises  ;

R_1 comprises H;

( ) comprises a $-CH_2-$ group or a direct covalent bond, and x and w are independently equal to 0 to 2, with the proviso that x and w can not both be equal to 0;

R_3 comprises

a) hydrogen;

b) $-C_{1-6}$ alkyl;

c) -C_{1-6} alkylaryl; or

d) -C_{1-6} alkoxyaryl;

R_4 comprises

a) -C_{1-6} alkylaryl;

b) -C_{1-6} alkoxyaryl; or

c) –aryl;

R_6 comprises

a) –H;

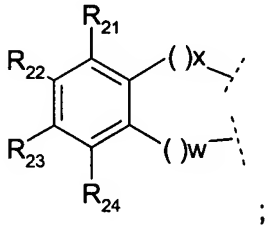
b) -C_{1-6} alkyl;

c) –aryl;

d) -C_{1-6} alkylaryl; or

e) a group selected from –$C(O)R_{25}$, -$C(O)OR_{25}$, -$C(O)NR_{26}R_{25}$, -$S(O)_2R_{25}$, and –$S(O)_2NR_{26}R_{25}$; wherein R_{25} and R_{26} independently comprise -C_{1-6} alkyl, aryl, or –C_{1-6} alkylaryl;

R_5 and R_2 are taken together to form a ring of structure



;

wherein R_{21}, R_{22}, R_{23} and R_{24} independently comprise

i) –H;

ii) -C_{1-6} alkyl;

iii) –aryl;

iv) -C_{1-6} alkylaryl; or

v) a group of the formula –U-R_{27}, wherein U comprises –C(O)-, -C(O)O-, -O-, -S-, -S(O)-, -$S(O)_2$-, or -NR_{28}-,

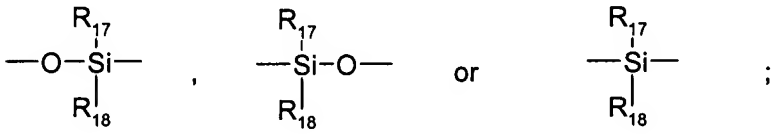
wherein R_{27} and R_{28} independently comprise –H, -aryl, -C_{1-6} alkyl, or -C_{1-6} alkylaryl;

the aryl and/or alkyl group(s) in R_3, R_4, and R_6 may be optionally substituted 1-4 times with a substituent group, wherein said substituent group(s) or the term substituted refers to groups comprising:

a) -H;

b) -Y-C_{1-6} alkyl;
-Y-aryl;
-Y-C_{-1-6} alkylaryl;
-Y-C_{1-6}-alkyl-$NR_{14}R_{15}$;
-Y-C_{1-6}-alkyl-W-R_{16};

wherein Y and W independently comprise -CH_2-, -O-, -N(H), -S-, SO_2-, -CON(H)-, -NHC(O)-, -NHCON(H)-, -$NHSO_2$-, -$SO_2N(H)$-, -C(O)-O-, -$NHSO_2NH$-, -O-CO-,

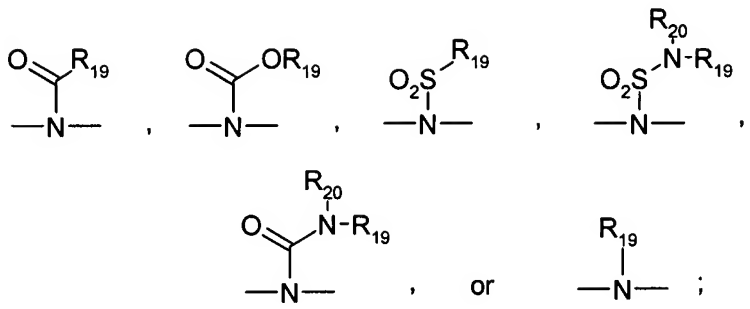


R_{16}, R_{17}, and R_{18} independently comprise hydrogen, aryl, C_1-C_6 alkyl, C_1-C_6 alkylaryl, C_1-C_6 alkoxy, or C_1-C_6 alkoxyaryl; or

c) halogen, hydroxyl, cyano, carbamoyl, or carboxyl; and

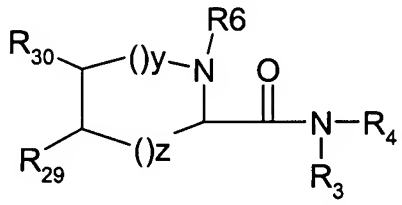
R_{14} and R_{15} independently comprise hydrogen, aryl, C_1-C_6 alkyl, and C_1-C_6 alkylaryl; or wherein

R_{14} and R_{15} may be taken together to form a ring having the formula -$(CH_2)_o$-Z-$(CH_2)_p$- bonded to the nitrogen atom to which R_{14} and R_{15} are attached, wherein o and p are, independently, 1, 2, 3, or 4; Z comprises a direct bond, -CH_2-, -O-, -S-, -$S(O_2)$-, -C(O)-, -CON(H)-, -NHC(O)-, -NHCON(H)-, -$NHSO_2$-, -$SO_2N(H)$-, -C(O)-O-, -O-C(O)-, -$NHSO_2NH$-,



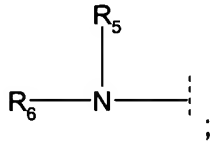
R_{19} and R_{20} comprise hydrogen, aryl, C_1-C_6 alkyl, or C_1-C_6 alkylaryl.

3. (Original) The compound of claim 1, represented by Formula (Ib)



(Ib)

wherein,
G_1 comprises a direct bond;

G_2 comprises  ;

R_1 comprises H;

( ) comprises a $-CH_2-$ group or a direct covalent bond, and y and z are, independently,an integer of from 0 to 3;

R_3 comprises

a) hydrogen;
b) $-C_{1-6}$ alkyl;
c) $-C_{1-6}$ alkylaryl; or
d) $-C_{1-6}$ alkoxyaryl;

R_4 comprises

a) -C_{1-6} alkylaryl;

b) -C_{1-6} alkoxyaryl; or

c) –aryl;

R_6 comprises

a) –H;

b) -C_{1-6} alkyl;

c) –aryl;

d) -C_{1-6} alkylaryl; or

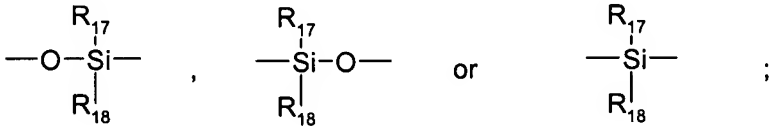
e) a group selected from –$C(O)R_{25}$, -$C(O)OR_{25}$, -$C(O)NR_{26}R_{25}$, -$S(O)_2R_{25}$, and –$S(O)_2NR_{26}R_{25}$; wherein R_{25} and R_{26} independently comprise -C_{1-6} alkyl, aryl, or –C_{1-6} alkylaryl;

the aryl and/or alkyl group(s) in R_3, R_4, and R_6 may be optionally substituted 1-4 times with a substituent group, wherein said substituent group(s) or the term substituted refers to groups comprising:

a) -H;

b) -Y-C_{1-6} alkyl;
-Y-aryl;
-Y-C_{-1-6} alkylaryl;
-Y-C_{1-6}-alkyl-$NR_{14}R_{15}$;
-Y-C_{1-6}-alkyl-W-R_{16};

wherein Y and W independently comprise -CH_2-, -O-, -N(H), -S-, SO_2-, -CON(H)-, -NHC(O)-, -NHCON(H)-, -$NHSO_2$-, -$SO_2N(H)$-, -C(O)-O-, -$NHSO_2NH$-, -O-CO-,



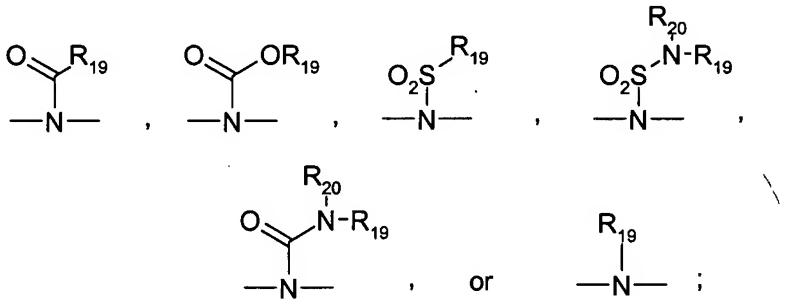
;

R_{16}, R_{17}, and R_{18} comprise hydrogen, aryl, C_1-C_6 alkyl, C_1-C_6 alkylaryl, C_1-C_6 alkoxy, or C_1-C_6 alkoxyaryl; or

c) halogen, hydroxyl, cyano, carbamoyl, or carboxyl; and

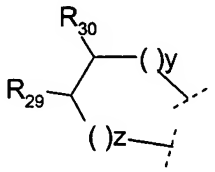
R_{14} and R_{15} independently comprise hydrogen, aryl, C_1-C_6 alkyl, or C_1-C_6 alkylaryl; and wherein

R_{14} and R_{15} may be taken together to form a ring having the formula $-(CH_2)_o-Z-(CH_2)_p-$ bonded to the nitrogen atom to which R_{14} and R_{15} are attached, wherein o and p are, independently, 1, 2, 3, or 4; Z comprises a direct bond, $-CH_2-$, -O-, -S-, $-S(O_2)-$, -C(O)-, -CON(H)-, -NHC(O)-, -NHCON(H)-, $-NHSO_2-$, $-SO_2N(H)-$, -C(O)-O-, -O-C(O)-, $-NHSO_2NH-$,



R_{19} and R_{20} comprise hydrogen, aryl, C_1-C_6 alkyl, or C_1-C_6 alkylaryl;

R_5 and R_2 are taken together to form a ring of structure



;

wherein R_{29} and R_{30} independently comprise

a) -H
b) $-C_{1-6}$ alkyl;
c) –aryl;
d) $-C_{1-6}$ alkylaryl;
e) $-C(O)-O-C_{1-6}$ alkyl;

f) -C(O)-O-C_{1-6} alkylaryl;
g) -C(O)-NH-C_{1-6} alkyl;
h) -C(O)-NH-C_{1-6} alkylaryl;
i) -SO_2-C_{1-6} alkyl;
j) -SO_2-C_{1-6} alkylaryl;
k) -SO_2-aryl;
l) -SO_2-NH-C_{1-6} alkyl;
m) -SO_2-NH-C_{1-6} alkylaryl;
n) -C(O)-C_{1-6} alkyl;
o) -C(O)-C_{1-6} alkylaryl; or
p) a group of the formula –V-R_{31},

wherein V comprises a group of the formula –C(O), -OC(O)-, -O-, -S-, -S(O)-, -S(O_2)-, -NH-, or -N(R_{32})-;

wherein R_{31} and R_{32} comprise

i) -H
ii) -C_{1-6} alkyl;
iii) –aryl;
iv) -C_{1-6} alkylaryl;
v) -C(O)-O-C_{1-6} alkyl;
vi) -C(O)-O-C_{1-6} alkylaryl;
vii) -C(O)-NH-C_{1-6} alkyl;-C(O)-NH-C_{1-6} alkylaryl;
viii) -SO_2-C_{1-6} alkyl;
ix) -SO_2-C_{1-6} alkylaryl;
x) -SO_2-aryl;
xi) -SO_2-NH-C_{1-6} alkyl;
xii) -SO_2-NH-C_{1-6} alkylaryl;
xiii) -C(O)-C_{1-6} alkyl; or
xiv) -C(O)-C_{1-6} alkylaryl;

wherein R_{29}, R_{30}, R_{31}, and R_{32} may be optionally substituted 1-4 times with a substituent group, wherein said substituent group(s) or the term substituted refers to groups comprising:

a) -H;

b) -L-C_{1-6} alkyl;

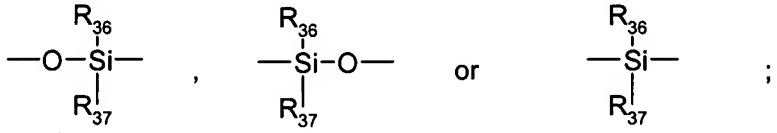
-L-aryl;

-L-C_{-1-6} alkylaryl;

-L-C_{1-6}-alkyl-$NR_{33}R_{34}$;

-L-C_{1-6} alkyl-Q_2-R_{35};

wherein L and Q_2 independently comprise -CH_2-, -O-, -N(H), -S-, SO_2-, -CON(H)-, -NHC(O)-, -NHCON(H)-, -$NHSO_2$-, -$SO_2N(H)$-, -C(O)-O-, -$NHSO_2NH$-, -O-CO-,

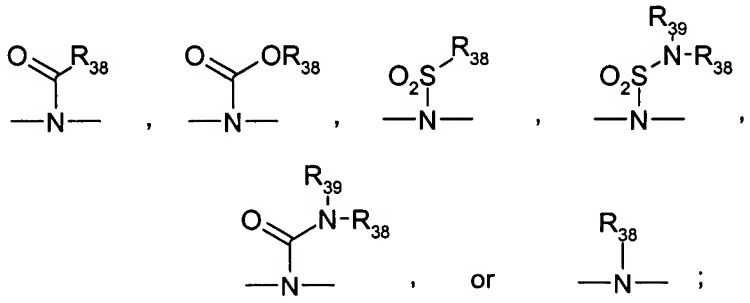


R_{35}, R_{36}, and R_{37} comprise hydrogen, aryl, C_1-C_6 alkyl, C_1-C_6 alkylaryl, C_1-C_6 alkoxy, or C_1-C_6 alkoxyaryl; or

c) halogen, hydroxyl, cyano, carbamoyl, or carboxyl; and

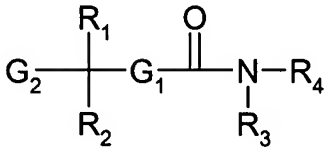
R_{33} and R_{34} independently comprise hydrogen, aryl, C_1-C_6 alkyl, or C_1-C_6 alkylaryl; and wherein

R_{33} and R_{34} may be taken together to form a ring having the formula -$(CH_2)_e$-J-$(CH_2)_k$- bonded to the nitrogen atom to which R_{33} and R_{34} are attached, wherein e and k are, independently, 1, 2, 3, or 4; J comprises a direct bond, -CH_2-, -O-, -S-, -$S(O_2)$-, -C(O)-, -CON(H)-, -NHC(O)-, -NHCON(H)-, -$NHSO_2$-, -$SO_2N(H)$-, -C(O)-O-, -O-C(O)-, -$NHSO_2NH$-,



R_{38} and R_{39} comprises hydrogen, aryl, C_1-C_6 alkyl, or C_1-C_6 alkylaryl.

4. (Original) The compound of claim 1, represented by Formula (Ic):



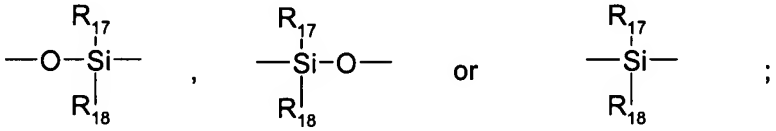
(Ic)

wherein,

R_1 comprises hydrogen, or C_{1-3} alkylaryl wherein the aryl is substituted with -Y-C_{1-6} alkylaryl;

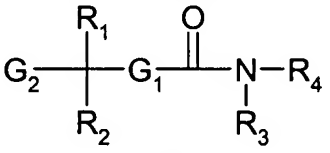
R_2 comprises C_{1-3} alkylaryl wherein the aryl is substituted with -Y-C_{1-6} alkylaryl,

wherein Y comprises -CH_2-, -O-, -N(H), -S-, SO_2-, -CON(H)-, -NHC(O)-, -NHCON(H)-, -$NHSO_2$-, -$SO_2N(H)$-, -C(O)-O-, -$NHSO_2NH$-, -O-CO-,



R_{17}, and R_{18} independently comprises hydrogen, aryl, C_1-C_6 alkyl, C_1-C_6 alkylaryl, C_1-C_6 alkoxy, or C_1-C_6 alkoxyaryl.

5. (Original) The compound of claim 1, represented by Formula (Id):



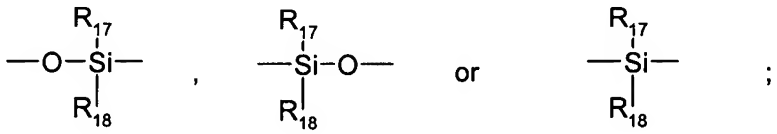
(Id)

wherein,

R_1 comprises hydrogen, or C_{1-3} alkylaryl wherein the aryl is substituted with -Y-C_{1-6} alkylaryl;

R_2 comprises C_{1-3} alkylaryl wherein the aryl is substituted with -Y-C_{1-6} alkylaryl;

wherein Y comprises -CH_2-, -O-, -N(H), -S-, SO_2-, -CON(H)-, -NHC(O)-, -NHCON(H)-, -$NHSO_2$-, -$SO_2N(H)$-, -C(O)-O-, -$NHSO_2NH$-, -O-CO-,

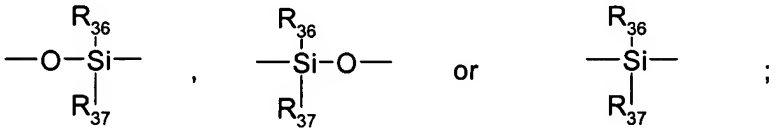


R_{17}, and R_{18} independently comprises hydrogen, aryl, C_1-C_6 alkyl, C_1-C_6 alkylaryl, C_1-C_6 alkoxy, or C_1-C_6 alkoxyaryl;

R_3 comprises hydrogen or –L-C_{1-6}-alkyl-$N(alkyl)_2$;

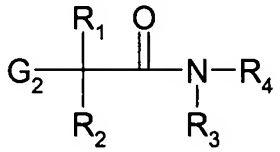
R_4 comprises –L-C_{1-6}-alkyl-$N(alkyl)_2$;

wherein L comprises -CH_2-, -O-, -N(H)-, -S-, SO_2-, -CON(H)-, -NHC(O)-, -NHCON(H)-, -$NHSO_2$-, -$SO_2N(H)$-, -C(O)-O-, -$NHSO_2NH$-, -O-CO-,



R_{35}, R_{36}, and R_{37} independently comprise hydrogen, aryl, C_1-C_6 alkyl, C_1-C_6 alkylaryl, C_1-C_6 alkoxy, or C_1-C_6 alkoxyaryl.

6. (Original) The compound of claim 1, represented by Formula (Ie):

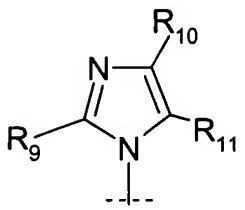
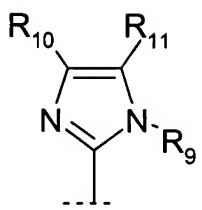
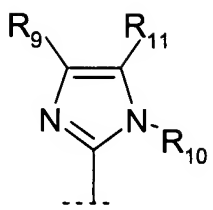
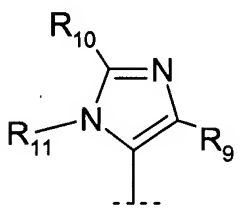
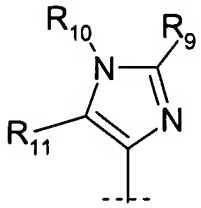


(Ie)

wherein,

G_1 comprises a direct bond;

G_2 comprises a group of the formula





, or

;

wherein

R_9, R_{10}, and R_{11} may be hydrogen; or

R_9, R_{10}, and R_{11} independently comprise

i) -C_{1-6} alkyl;
ii) –aryl;
iii) -C_{1-6} alkylaryl;
iv) -C(O)-O-C_{1-6} alkyl;
v) -C(O)-O-C_{1-6} alkylaryl;
vi) -C(O)-NH-C_{1-6} alkyl;
vii) -C(O)-NH-C_{1-6} alkylaryl;
viii) -SO_2-C_{1-6} alkyl;
ix) -SO_2-C_{1-6} alkylaryl;
x) -SO_2-aryl;
xi) -SO_2-NH-C_{1-6} alkyl;
xii) -SO_2-NH-C_{1-6} alkylaryl;
xiii) -C(O)-C_{1-6} alkyl; or
xiv) -C(O)-C_{1-6} alkylaryl; or

R_{10} and R_{11} may be taken together to constitute a fused cycloalkyl, fused heterocyclyl, or fused aryl ring containing the atoms to which R_{10} and R_{11} are bonded;

R_1 comprises H;

R_2 comprises

a) -C_{1-6} alkyl;
b) –aryl; or
c) -C_{1-6} alkylaryl;

R_3 comprises

a) hydrogen;
b) -C_{1-6} alkyl;
c) -C_{1-6} alkylaryl; or
d) -C_{1-6} alkoxyaryl;

R_4 comprises

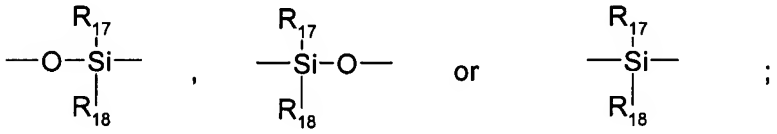
a) -C_{1-6} alkylaryl;
b) -C_{1-6} alkoxyaryl; or
c) –aryl;

the aryl and/or alkyl group(s) in R_2, R_3, R_4, R_9, R_{10}, R_{11} may be optionally substituted 1-4 times with a substituent group, wherein said substituent group(s) or the term substituted refers to groups comprising:

a) -H;

b) -Y-C_{1-6} alkyl;
-Y-aryl;
-Y-C_{-1-6} alkylaryl;
-Y-C_{1-6}-alkyl-$NR_{14}R_{15}$;
-Y-C_{1-6}-alkyl-W-R_{16};

wherein Y and W independently comprise $-CH_2-$, -O-, -N(H), -S-, SO_2-, -CON(H)-, -NHC(O)-, -NHCON(H)-, $-NHSO_2-$, -$SO_2N(H)$-, -C(O)-O-, $-NHSO_2NH-$, -O-CO-,

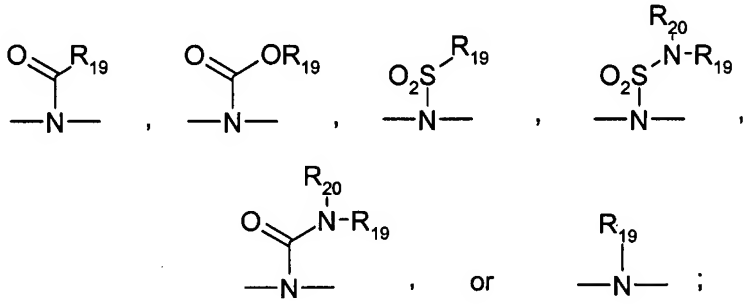


R_{16}, R_{17}, and R_{18} comprise hydrogen, aryl, C_1-C_6 alkyl, C_1-C_6 alkylaryl, C_1-C_6 alkoxy, or C_1-C_6 alkoxyaryl; or

c) halogen, hydroxyl, cyano, carbamoyl, or carboxyl; and

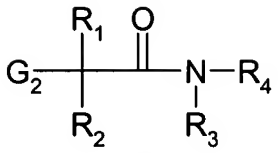
R_{14} and R_{15} independently comprise hydrogen, aryl, C_1-C_6 alkyl, or C_1-C_6 alkylaryl; and wherein

R_{14} and R_{15} may be taken together to form a ring having the formula $-(CH_2)_o-Z-(CH_2)_p-$ bonded to the nitrogen atom to which R_{14} and R_{15} are attached, wherein o and p are, independently, 1, 2, 3, or 4; Z comprises a direct bond, $-CH_2-$, -O-, -S-, $-S(O_2)-$, -C(O)-, -CON(H)-, -NHC(O)-, -NHCON(H)-, $-NHSO_2-$, $-SO_2N(H)-$, -C(O)-O-, -O-C(O)-, $-NHSO_2NH-$,



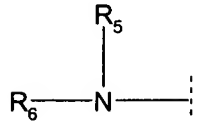
R_{19} and R_{20} independently comprise hydrogen, aryl, C_1-C_6 alkyl, or C_1-C_6 alkylaryl;

7. (Original) The compound of claim 1, represented by Formula (If):



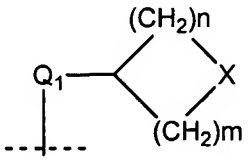
(If)

wherein,
G_1 comprises a direct bond;

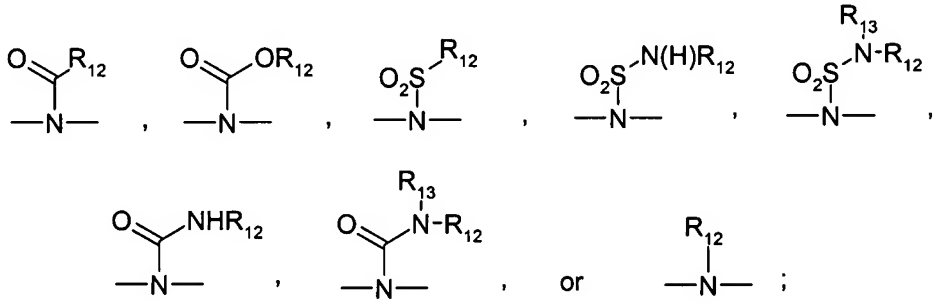
G_2 comprises  ;

R_1 comprises H;

R_2 comprises a group of the formula



wherein m and n are independently selected from 1, 2, 3, or 4; X comprises a direct bond, CH_2-, -O-, -S-, -S(O_2)-, -C(O)-, -CON(H)-, -NHC(O)-, -NHCON(H)-, -NHSO_2-, -SO_2N(H)-, -C(O)-O-, -O-C(O)-, -NHSO_2NH-,



-Q_1- comprises C_{1-6} alkylene, C_{2-6} alkenylene, or C_{2-6} alkynylene;

R_{12} and R_{13} independently comprises hydrogen, C_1-C_6 alkyl, C_1-C_6 alkylaryl, or aryl; and wherein

R_3 comprises

a) hydrogen;

b) -C_{1-6} alkyl;

c) -C_{1-6} alkylaryl; or

d) -C_{1-6} alkoxyaryl;

R_4 comprises

a) -C_{1-6} alkylaryl;

b) -C_{1-6} alkoxyaryl; or

c) –aryl;

R_5 and R_6 independently comprise

a) –H;

b) -C_{1-6} alkyl;

c) –aryl;

d) -C_{1-6} alkylaryl; or

e) a group selected from –$C(O)R_{25}$, -$C(O)OR_{25}$, -$C(O)NR_{26}R_{25}$, -$S(O)_2R_{25}$, and –$S(O)_2NR_{26}R_{25}$; wherein R_{25} and R_{26} independently comprise -C_{1-6} alkyl, aryl, and –C_{1-6} alkylaryl;

the aryl and/or alkyl group(s) in R_3, R_4, R_5, R_6, R_{12}, and R_{13} may be optionally substituted 1-4 times with a substituent group, wherein said substituent group(s) or the term substituted refers to groups comprising:

a) -H;

b) -Y-C_{1-6} alkyl;

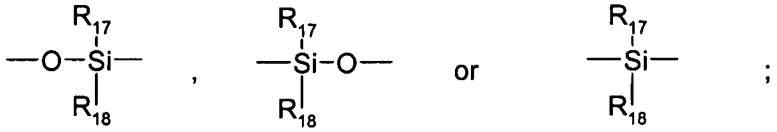
-Y-aryl;

-Y-C_{-1-6} alkylaryl;

-Y-C_{1-6}-alkyl-$NR_{14}R_{15}$;

-Y-C_{1-6}-alkyl-W-R_{16};

wherein Y and W independently comprise -CH_2-, -O-, -N(H), -S-, SO_2-, -CON(H)-, -NHC(O)-, -NHCON(H)-, -$NHSO_2$-, -$SO_2N(H)$-, -C(O)-O-, -$NHSO_2NH$-, -O-CO-,

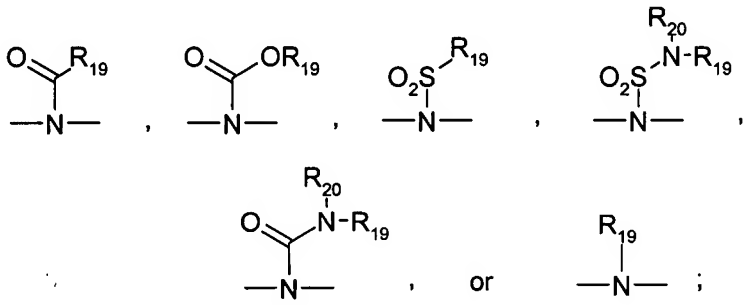


R_{16}, R_{17}, and R_{18} independently comprise hydrogen, aryl, C_1-C_6 alkyl, C_1-C_6 alkylaryl, C_1-C_6 alkoxy, or C_1-C_6 alkoxyaryl; or

c) halogen, hydroxyl, cyano, carbamoyl, or carboxyl; and

R_{14} and R_{15} independently comprises hydrogen, aryl, C_1-C_6 alkyl, or C_1-C_6 alkylaryl; and wherein

R_{14} and R_{15} may be taken together to form a ring having the formula -$(CH_2)_o$-Z-$(CH_2)_p$- bonded to the nitrogen atom to which R_{14} and R_{15} are attached, wherein o and p are, independently, 1, 2, 3, or 4; Z comprises a direct bond, -CH_2-, -O-, -S-, -$S(O_2)$-, -C(O)-, -CON(H)-, -NHC(O)-, -NHCON(H)-, -$NHSO_2$-, -$SO_2N(H)$-, -C(O)-O-, -O-C(O)-, -$NHSO_2NH$-,



R_{19} and R_{20} independently comprise hydrogen, aryl, C_1-C_6 alkyl, or C_1-C_6 alkylaryl.

8. Cancelled.

9. Cancelled.